
INSTALLATION, OPERATION & MAINTENANCE MANUAL

Caricabatterie Serie *SXE-SE-EVO*



**SAFETY &
RELIABILITY**



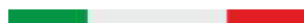
EASY TO USE



SPECIAL FUNCTIONS



TCE Group Srl



Via Giuseppe di Vittorio 5/9 - 35046 Borgo Veneto (Padova) – ITALY
web: www.tcechargers.com

INTRODUCTION

This installation, use, maintenance and configuration manual contains instructions and / or recommendations for users of the SXE-SE-EVO SERIES battery chargers and is an integral part of the battery charger even if the charger is sold to another owner, IN QUEST 'LAST CASE THE WARRANTY IS LOSED.

The general index lists all the topics covered in the entire manual. The numbering of the pages is progressive and each page shows the number of the same.

Before installing and using the charger, it is necessary to carefully read this manual in all its parts and fully understand the correct procedures for installation, use and maintenance.

This manual must be kept in good condition throughout the life of the charger, away from humid places and always accessible to users.

TCE Group S.r.l. declares that the information contained in this manual complies with the technical and safety specifications of the SXE-SE-EVO SERIES which the manual refers.

A certified copy of this manual is deposited in the technical file of the device, kept at TCE Group S.r.l ..

TCE Group S.r.l. does not recognize any documentation that has not been produced, issued or distributed by itself or by its authorized representative.

This manual, like all the technical file, will be kept by the manufacturer for the period required by law (10 years).

During this period, a copy of the documentation accompanying the product may be requested at the time of sale.

The entire technical file remains available for this period exclusively for the supervisory authorities, who may request a copy.

After this period, it will be the obligation and care of whoever manages the product to make sure that both the product and the documentation comply with the regulations in force at the time of the inspection.

Also pay particular attention to the symbols on both the manual and the charger.

SYMBOLS ADOPTED IN THIS MANUAL



NOTE

NOTES CONTAIN IMPORTANT INFORMATION



WARNING

THE WARNING INDICATIONS INDICATE THOSE PROCEDURES WHICH TOTAL OR PARTIAL NON-COMPLIANCE MAY CAUSE DAMAGE TO THE DEVICE, ITS COMPONENTS AND MAY EXPOSE THE USER OR PEOPLE TO DANGERS.



DANGER

THE DANGER INDICATIONS INDICATE THOSE PROCEDURES WHICH TOTAL OR PARTIAL NON-COMPLIANCE CAN CAUSE SERIOUS DAMAGE TO THE EQUIPMENT AND / OR SERIOUS INJURY TO THE HEALTH OF PEOPLE.



ATTENTION

CAUTION INDICATIONS INDICATE THOSE PROCEDURES WHICH TOTAL OR PARTIAL NON-COMPLIANCE CAN CAUSE SERIOUS DAMAGE TO THE EQUIPMENT AND / OR SERIOUS INJURY TO THE HEALTH OF PEOPLE AND THINGS.

SYMBOLS ADOPTED ON THE BATTERY CHARGER

**DANGER OF ELECTRIC SHOCK
OR ELECTROCUTION**

ELECTROCUTION CAN HAPPEN FOR:

- 1- DIRECT CONTACT
- 2- INDIRECT CONTACT
- 3- ELECTRIC ARC



GENERIC DANGER

GENERIC DANGER

- 1- DANGER FOR PEOPLE
- 2- DANGER FOR THE EQUIPMENT
- 3- DANGER FOR THE ENVIRONMENT



HOT SURFACE DANGER

HOT SURFACE DANGER

- 1 - DANGER FOR PEOPLE

**ATTENTION!**

The SYMBOLS on the charger, which have a safety function, must not be removed, covered or damaged.

MANUFACTURER'S DATA

Builder:	TCE Group s.r.l.
Registered office:	Via G. di Vittorio 5/9 – 35046 Borgo Veneto PD - Italy
VAT number:	04458670280
tel. Office:	+39 0429 89 290
Opening hours:	AM 8:00-12 PM 14:00-18:00

AUTHORIZED TECHNICAL ASSISTANCE

Authorized technical assistance on **SXE-SE-EVO** SERIES battery chargers is performed only and exclusively by TCE Group S.r.l. or by a qualified technician appointed by TCE Group S.r.l.

TECHNICAL ASSISTANCE

TCE Group s.r.l.

Via G. di Vittorio 5/9 – 35046 Borgo Veneto PD - Italy
+39 0429 89 290

NOTES ON THE DECLARATION OF CONFORMITY

The **SXE-SE-EVO** SERIES chargers described in this manual are accompanied for sale by the declaration of conformity, drawn up in compliance with the regulations in force in the European territory.



NOTE

**BEFORE USING THE DEVICE, CHECK THE PRESENCE OF THE DECLARATION OF CONFORMITY.
IF THE DEVICE IS TRANSFERRED TO A THIRD PARTY, ALL THE DOCUMENTATION MUST BE
DELIVERED TOGETHER WITH IT, AS AN INTEGRAL PART OF ITSELF.**

WARRANTY

The warranty of the charger includes the replacement or repair of components recognized as defective by the manufacturer (factory defect), the costs of collection and shipping remain the responsibility of the buyer.

The warranty clauses, listed below and in full in the purchase contract, are valid only and exclusively if the device is used in compliance with the conditions of use and maintenance provided for in this manual.

Any repairs and / or modifications made to the charger carried out by the user or by personnel not expressly authorized by TCE Group S.r.l., causes the immediate forfeiture of the guarantee and at the same time raises TCE Group S.r.l. from any liability in case of damage to people, property and animals.

The Warranty, as per law, covers the products placed on the market by TCE Group S.r.l., for a period of 12 months, solely from manufacturing defects recognized by the manufacturer.

GENERAL WARRANTY CONDITIONS

- 1- The manufacturer guarantees the product, with the exception of elements subject to normal wear such as power supply cable on the mains side, charging cable on the battery side, chassis, air filters, cooling fans, for a duration of 1 (one) years from the date of purchase which must be proven by a documentary evidence (invoice) showing the name of the seller and the buyer and the date on which the sale was made.
- 2- Submission of the completed guarantee certificate within 8 days, from the purchase of the charger.
- 3- To make the guarantee valid and effective, the installation must be carried out in a workmanlike manner and the appliance must be started up only by qualified personnel who, in the foreseen cases, must issue the user a declaration of conformity of the 'plant and product running smoothly.
- 4- Installations that do not comply with current standards invalidate the product warranty, as well as improper use and lack of maintenance as provided by the manufacturer.
- 5- The warranty is valid on the condition that the instructions and warnings contained in the use and maintenance manual accompanying the appliance are observed, in order to allow for more correct use.
- 6- The replacement of the entire appliance or the repair of one of its component parts does not extend the duration of the warranty which remains unchanged.
- 7- By warranty we mean the free replacement or repair of parts recognized as faulty at origin due to manufacturing defects, **the cost of collection and shipping of the product is always borne by the buyer, UNLESS DIFFERENT WRITTEN PROVISIONS OF THE MANUFACTURER.**
- 8- To take advantage of the guarantee, in the event of a defect, the buyer must keep the guarantee certificate and show it together with the document issued at the time of purchase, to the Manufacturer.

LIMITATION OF LIABILITY OF THE MANUFACTURER**WARNING!**

TCE Group S.r.l. declines all responsibility for any damage that may derive, directly or indirectly, to people, things and animals due to failure to comply with the prescriptions indicated in this manual and specifically, concerning the warnings regarding the installation, use and maintenance of the battery charger.

CASES OF LIMITATION OF MANUFACTURER'S LIABILITY:

- 1- THE BATTERY CHARGER HAS NOT BEEN INSTALLED BY QUALIFIED PERSONNEL;
- 2- THE ELECTRICAL CONNECTIONS OF THE BATTERY CHARGER TO THE ELECTRICITY NETWORK AND TO THE BATTERY TO BE CHARGED, DO NOT RESPOND TO THE MANUFACTURER'S INSTRUCTIONS AND HOWEVER AND EVEN WORSE DO NOT RESPECT THE REGULATIONS IN FORCE AT THE TIME OF ITS INSTALLATION AND COMMISSIONING;
- 3- THE MANUFACTURER'S INSTALLATION INSTRUCTIONS HAVE NOT BEEN STRICTLY FOLLOWED;
- 4- THE BATTERY CHARGER HAS NOT BEEN MAINTAINED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS;
- 5- THE BATTERY TO BE CHARGED IS DEFECTIVE OR INCORRECTLY CONNECTED TO THE CHARGER;
- 6- THE BATTERY DOES NOT MATCH THE TYPE OF BATTERY THAT THE CHARGER CAN CHARGE;
- 7- THE BATTERY HAS BEEN DAMAGED DURING CHARGING OR ITS TRANSPORT;
- 8- THE BATTERY IS DEFECTIVE FROM THE ORIGIN;
- 9- THE BATTERY CHARGER HAS BEEN USED BY NON-QUALIFIED PERSONNEL AND APPROPRIATELY EDUCATED;
- 10- THE BATTERY CHARGER HAS ALSO BEEN PARTIALLY "MODIFIED" WITHOUT WRITTEN AUTHORIZATION OF THE MANUFACTURER;
- 11- NON ORIGINAL BATTERY CHARGER SPARE PARTS HAVE BEEN USED;
- 12- THE BATTERY CHARGER HAS NOT BEEN INSTALLED IN A WELL Aired ENVIRONMENT AS PER THE INSTRUCTIONS MANUFACTURER AND AS AN INDICATION OF THE SAFETY RULES IN FORCE AT THE TIME OF ITS INSTALLATION AND COMMISSIONING;
- 13- THERE HAS BEEN IMPROPER USE OF THE BATTERY CHARGER;
- 14- THE BATTERY CHARGER IS DAMAGED DURING TRANSPORT;
- 15- THE BATTERY CHARGER IS DAMAGED DURING THE INSTALLATION OPERATIONS, HANDLING, ETC.
- 16- IN GENERAL IN ALL THOSE CASES THAT HAVE NOT BEEN COMPLIED WITH THE WARNINGS AND INDICATIONS OF THE MANUFACTURER AND / OR THE INSTALLATION AND SAFETY RULES IN FORCE AT THE TIME OF INSTALLATION AND THE COMMISSIONING OF THE BATTERY CHARGER.

SAFETY CONDITIONS AND WARNINGS

**WARNINGS!****GENERAL INFORMATION**

- 1- The charger can cause injury or death or damage to other equipment or property if the user and / or installer does not scrupulously observe all federal, state or local safety regulations and all instructions on installation, use and maintenance before using this appliance.
- 2- Only qualified and previously trained personnel will be able to take care of the installation, use or maintenance of the battery charger.
- 3- ***Any responsibility for improper use of the battery charger is fully borne by the user and relieves the manufacturer of all civil and criminal liability.***
- 4- The battery charger must be connected to the power supply via the Magnetothermic switch and / or protection fuses, suitably sized by referring to the plate data shown on the charger label, such as Supply Voltage and Nominal Current.
- 5- Frequently check the battery charge conductors, in order to exclude the presence of damage to the electrical insulation of the same, in case of wear, switch off the battery charger and have them replaced by qualified personnel.
- 6- Do not touch the battery terminals for any reason while the charger is operating,
- 7- danger of electrocution.
- 8- Do not clean the charger with water or liquids, these could penetrate inside the unit and damage the electrical insulation, causing electric shock or fire.
- 9- **Install the battery charger in rooms that are not at risk of fire and well ventilated, respecting Federal, state or local regulations.**
- 10- Ordinary and extraordinary maintenance operations must be carried out only and exclusively by authorized and qualified personnel.
- 11- Disconnect the charger from the mains before carrying out any maintenance operations..

PREVENTION OF FIRE OR EXPLOSION

During the battery recharging process, they generate hydrogen gas, which at certain concentrations in the air, could generate an explosive atmosphere if ventilation is not sufficient.

The ventilation system must therefore be designed according to federal, state or local regulations, in order to provide an adequate amount of air exchange for the number of batteries to be charged, this is a fundamental requirement for the prevention of fires or explosions.

Avoid sparks, open flames, use of cigarettes, or any other source of combustion in the battery charging room.

Do not interrupt or remove the charging cables FROM THE BATTERIES when the charger is "LIVE", first turn off the Battery charger and then after 10/20 seconds remove the charging cables from the batteries.

Avoid that metal objects such as work tools or the like may be placed on or near the battery, as these may accidentally generate short circuits or electric arcs between the free poles of the battery resulting in a fire or explosion.

PREVENTION OF BURNS OR BODY INJURY

In the event of a short circuit, the battery produces very high currents, these can cause severe burns or body injuries, make sure to always use the personal protective equipment prescribed by the standards federal, state, or local.

Some types of batteries contain highly corrosive acid which can cause burns or bodily injury if contacted, be sure to always use the personal protective equipment prescribed by federal, state or local regulations.

ELECTRIC SHOCK FIRST AID MEASURES



ATTENTION! ELECTRIC SHOCKS CAN BE DEADLY

If the user has suffered an electric shock and is unconscious, do not touch him if he is in contact with the charger or with the battery or charging cables or other electrical circuit components that are live.

Disconnect power from the wall switch, then START First Aid PROCEDURES and notify MEDICAL SERVICE IMMEDIATELY.

TRANSPORT AND STORAGE



ATTENTION!

Always observe the standards and regulations related to accident prevention when handling the CHARGER, whether federal, state or local.

- 1- Pay attention when handling the Battery Charger.
- 2- Inspect the packaging to detect any damage suffered during transport.
- 3- Note any damage suffered during transport on the receipt or on the transport document, or immediately notify the manufacturer by e-mail.
- 4- Unpack the charger carefully.
- 5- For handling, never grab the charger by the power cables and / or charging cables.

STORAGE

- 1- If the charger is not installed immediately after delivery, store it in a dry environment with humidity and temperature as indicated in points 2 and 3.
- 2- Storage humidity from 20% to 60%.
- 3- Storage temperature from 10 ° C to 60 ° C
- 4- Make sure that the battery chargers are not stacked on top of each other.

RETURN

- 1- In case of returning the Battery Charger, fill in a technical sheet where it must be reported in detail the reason for the return.
- 2- Pack the battery charger as in the original or in any case with safe packaging.
- 3- We do not accept RETURNS of Chargers with makeshift packaging.
- 4- Contact TCE Group S.r.l. for specific instructions on how to return the charger
- 5- Obtain the RETURN Authorization from TCE Group S.r.l.
- 6- No other procedure other than that specified in points 1,2,3,4,5 will be accepted by the Manufacturer, with consequent forfeiture of the Warranty.

DISPOSAL

- 1- Dispose of the charger and its accessories in accordance with applicable federal, state or local regulations.
- 2- TCE Group S.r.l. declines all responsibility in case of non-observance of the disposal precautions of the charger, which must be taken to the collection point indicated for the recycling of the electrical and electronic equipment, in accordance with applicable federal, state or law locals.

DESCRIPTION CHARGER SXE-SE-EVO SERIES

The **SXE-SE-EVO SERIES** battery chargers are “traditional” products, that is with 50 / 60Hz Dispersed Flow Power Transformer.

Thanks to the latest generation electronic control board with microprocessor and the Leakage Flow Transformer, it makes this series very flexible, accurate and precise in the control phase of the Battery Charge Curves (Cycles).

The proprietary software (by TCE Group S.r.l.) relies on complex Algorithms resulting from years of experience in the field of Battery Chargers, the User-configurable Charging Times (Timer) and the Charging Current Curve, which is also guaranteed by the "Characteristic Physics" of Leakage Flow Transformers, ie the current curve during the charging phase is decreasing.

All TCE Group Srl battery chargers, including the SXE-SE-EVO SERIES, are equipped with different timers that can be configured at the time of order by the manufacturer, which make charges out of working hours (night and / or weekend) flexible.

SAFETY DEVICES INSIDE THE BATTERY CHARGER

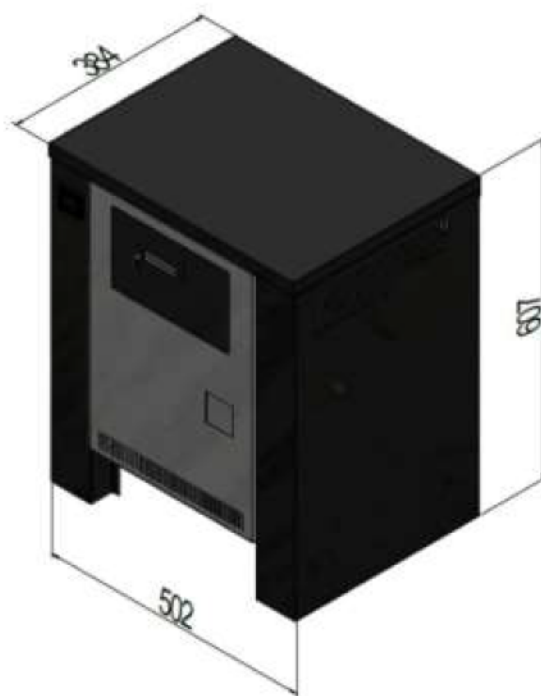
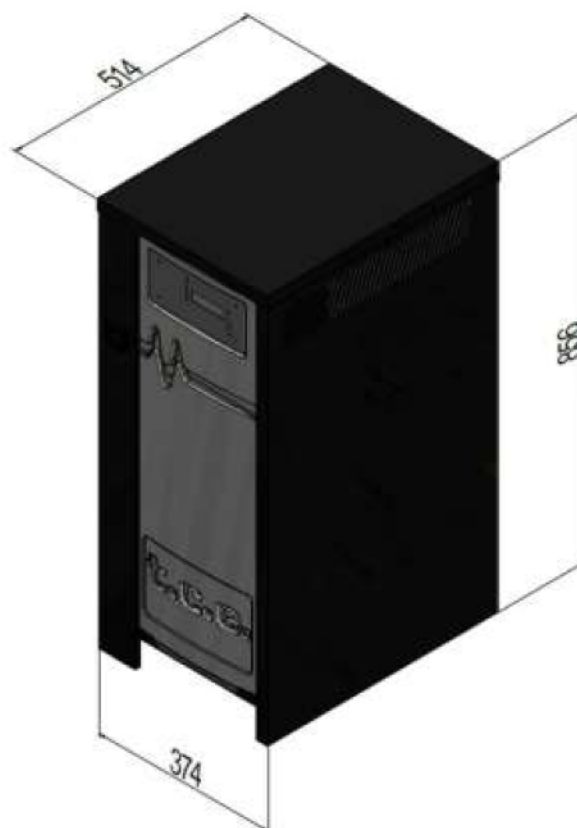
The **SXE-SE-EVO SERIES** chargers are equipped with various safety devices to ensure safe and reliable use over time.

The safety devices are used to protect the charger, the battery and the surrounding environment.

The control board guarantees the charging cycle, as it monitors the various stages of the charge, making sure that the controlled values (Times and Current) are always within the range that determines the optimal battery charge.

The fuse installed inside the device protects against short circuit and polarity inversion.

MECHANICAL DIMENSIONS

BOX
SXE-SE SERIES**BOX**
SE-EVO SERIES

SE-EVO SERIES**SXE-SE SERIES****ATTENTION!**

The connection operation can only be carried out by qualified personnel, in compliance with the regulations in force whether they are federal, state or locals.

- 1- Place the charger in the appropriate charging room.**
- 2- Connect the power cable located on the rear side of the battery charger to a thermal magnetic switch sized according to the indications given by the manufacturer on the battery charger label (Supply Voltage, Nominal Current, Nominal Power), use CEMBRE PKC or similar crimp probes. , in order to ensure a good electrical contact between the strands of the conductors and the tips.**
- 3- Connect the polarized connector (charged to the customer and in any case not supplied with the battery charger) to the two DC SIDE cables (battery charging cables), make sure it is compatible with the connector used on the battery.**
- 4- The connection operation can only be carried out by qualified personnel, in compliance with applicable federal, state or local regulations, using the individual safety devices prescribed by them.**

START-UP

**ATTENTION!**

The START-UP operation can only be carried out by qualified personnel, in compliance with current regulations whether they are federal, state or local..



NOTE: Make sure you have carried out ALL the indications in points 1,2,3 on page 36 (INSTALLATION) and proceed as follows.

**ATTENTION!**

PERFORM ALL OPERATIONS ACCORDING TO THE ORDER OF THE POINTS LISTED BELOW, FIRST CONNECT THE BATTERY TO THE CHARGE CABLE AND ONLY AFTER TURN ON THE MAGNETOTHERMAL SWITCH THAT POWERS THE BATTERY CHARGER FOLLOWING THE PRECISE ORDER OF THE INSTRUCTIONS. PAY SPECIAL ATTENTION TO POINT 1.

START-UP PROCEDURE

1- Connect the battery to the Battery Charger with the appropriate connector (not supplied by TCE, but charged to the customer), only for the SE and EVO models, get a Tester and once the Connector is connected to the Battery, check the Battery Voltage and Compare it with the Battery Voltage read on the Battery Charger Display, if the two voltages match it means that the Connector has been connected correctly, if the two voltages do not match and the one measured with the Tester is Greater than that marked on the Display of the battery charger, REDO CONNECTOR CONNECTIONS.

2- Turn on the Magnetothermic switch that powers the Battery Charger

3- For the SXE SERIES: make sure that the LED is lit in Blue Figure 1 Page 38

For SE SERIES: make sure that the red led on the left side of the panel is steady on Figure 2 Page 38

For the EVO SERIES: make sure that the red led on the left side of the panel is steady on Figure 3 Page 38

4- After having switched on the Magnetothermic switch (respecting points 1,2), make sure that the LEDs of the control panels are switched on as reported in point 3, with the help of figure1 - figure2 - figure3 on page 38, in the section "NOTICES REGARDING THE COMMISSIONING PROCEDURE".

5- In the event of operating anomalies of any kind, turn off the Magnetothermic switch and call TECHNICAL ASSISTANCE.

WARNINGS RELATING TO THE START-UP PROCEDURE

SXE SERIES



FIGURE 1



WARNING!

The Blue Led Must be Switched on

SE SERIES

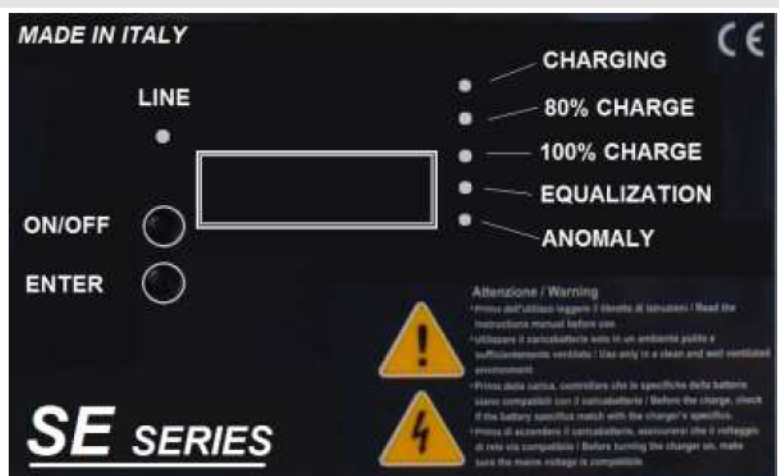


FIGURE 2



WARNING!

The Led Line Must be Lit in Red

EVO SERIES

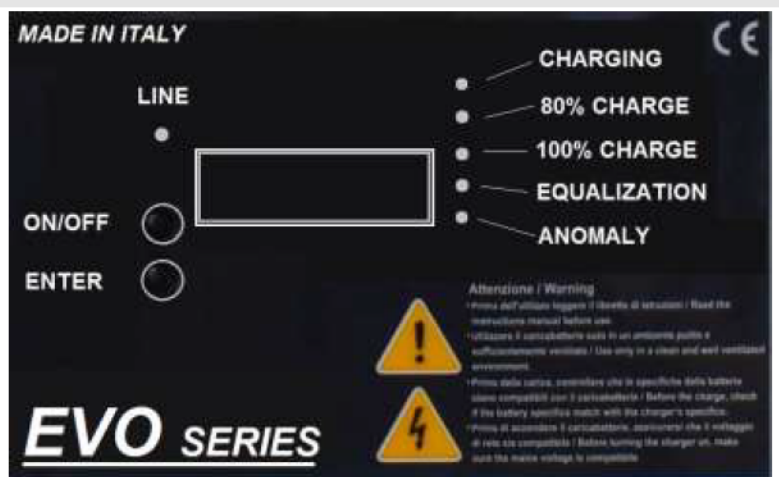


FIGURE 3



WARNING!

THE Led Line, Must be Lit in Red

USE AND INSTRUCTIONS FOR USE **SXE** SERIES**SXE** SERIES**WARNING!**

**THE BATTERY CHARGER
MUST ONLY BE USED BY
QUALIFIED AND
APPROPRIATELY
INSTRUCTED PERSONNEL.**

**ATTENTION!**

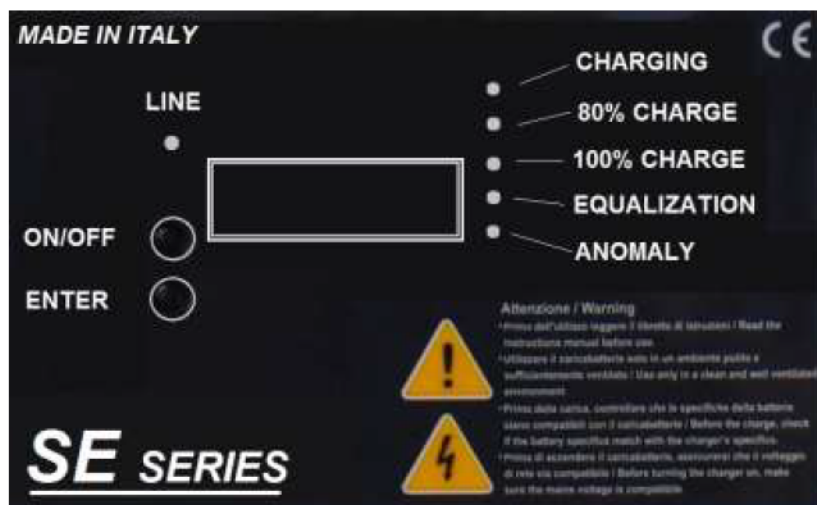
PERFORM ALL OPERATIONS ACCORDING TO THE ORDER OF THE POINTS LISTED BELOW, FIRST CONNECT THE BATTERY TO THE CHARGE CABLE AND ONLY AFTER TURN ON THE MAGNETOTHERMAL SWITCH THAT POWERS THE BATTERY CHARGER FOLLOWING THE PRECISE ORDER OF THE INSTRUCTIONS.

SXE SERIES USE PROCEDURE

- 1- Turn off the charger
- 2- Connect the battery to the charger
- 3- Switch on the charger with the blue LED on
- 4- Wait a few seconds, if the battery voltage is below the charge threshold set by the Wa curve, the charge will start automatically Red Led On
- 5- When the battery is charged, the charging process stops automatically. Green LED ON
- 6- At the end of each Charging Cycle, turn off the Charger and resume from point 1 to point 6
- 7- In the event of an electrical blackout during the charging phase, the charging cycle will resume automatically

IN THE EVENT OF ELECTRIC BLACKOUT DURING THE CHARGING PHASE, THE CYLO WILL RESUME AUTOMATICALLY

USE AND INSTRUCTIONS FOR USE SE SERIES

SE SERIES**WARNING!**

**THE BATTERY CHARGER
MUST ONLY BE USED BY
QUALIFIED AND
APPROPRIATELY
INSTRUCTED PERSONNEL.**

**ATTENTION!**

PERFORM ALL OPERATIONS ACCORDING TO THE ORDER OF THE POINTS LISTED BELOW, FIRST CONNECT THE BATTERY TO THE CHARGE CABLE AND ONLY AFTER TURN ON THE MAGNETOTHERMAL SWITCH THAT POWERS THE BATTERY CHARGER FOLLOWING THE PRECISE ORDER OF THE INSTRUCTIONS.

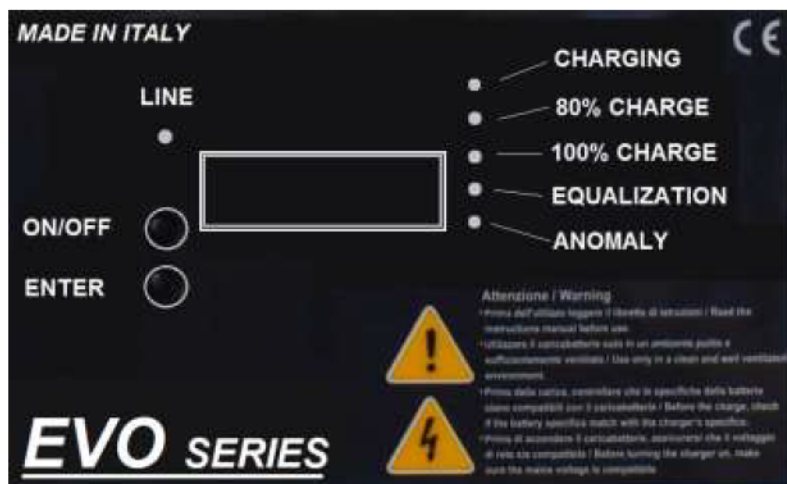
SE SERIES USE PROCEDURE

- 1- Turn off the charger
- 2- Connect the battery to the charger
- 3- Turn on the steady red Led Line Charger
- 4- Wait a few seconds, if the battery voltage is below the charge threshold set by the Wa curve, charging will start automatically. Led Charging Red steady
- 5- When the battery is fully charged, the charging process stops automatically Led 100% Charge Green steady
- 6- Equalization waiting phase, Equalization Led steady blue
- 7- End phase of equalization Equalization Led Fixed blue and 100% Charge Green Led steady
- 8- In case of anomalies Flashing Red Anomaly Led
- 9 - At the end of each Charging Cycle, turn off the Charger and start again from point 1 to point 7

**IN THE EVENT OF ELECTRIC BLACKOUT DURING THE CHARGING PHASE, THE CYLO WILL RESUME
AUTOMATICALLY**

USE AND INSTRUCTIONS FOR USE EVO SERIES

EVO SERIES

**WARNING!**

**THE BATTERY CHARGER
MUST ONLY BE USED BY
QUALIFIED AND
APPROPRIATELY
INSTRUCTED PERSONNEL.**

**ATTENTION!**

PERFORM ALL OPERATIONS ACCORDING TO THE ORDER OF THE POINTS LISTED BELOW, FIRST CONNECT THE BATTERY TO THE CHARGE CABLE AND ONLY AFTER TURN ON THE MAGNETOTHERMAL SWITCH THAT POWERS THE BATTERY CHARGER FOLLOWING THE PRECISE ORDER OF THE INSTRUCTIONS.

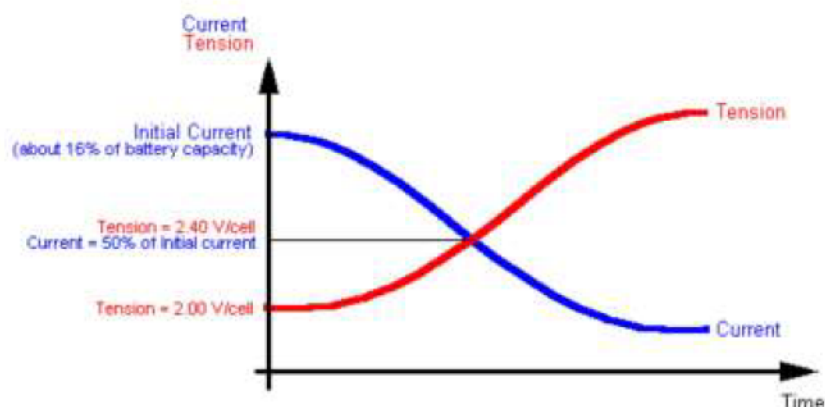
EVO SERIES USE PROCEDURE

- 1- Turn off the charger
- 2- Connect the battery to the charger
- 3- Turn on the steady red Led Line Charger
- 4- Wait a few seconds, if the battery voltage is below the charge threshold set by the Wa curve, charging will start automatically. Led Charging Red steady
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- 8- In case of anomalies Flashing Red Anomaly Led
- 9- At the end of each Charging Cycle, turn off the Charger and start again from point 1 to point 7

**IN THE EVENT OF ELECTRIC BLACKOUT DURING THE CHARGING PHASE, THE CYLO WILL RESUME
AUTOMATICALLY**

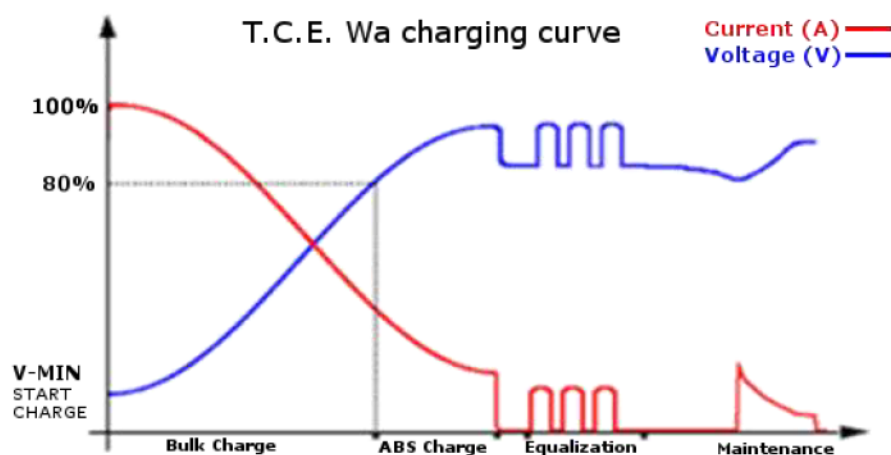
CHARGE CURVES

CHARGE CURVES



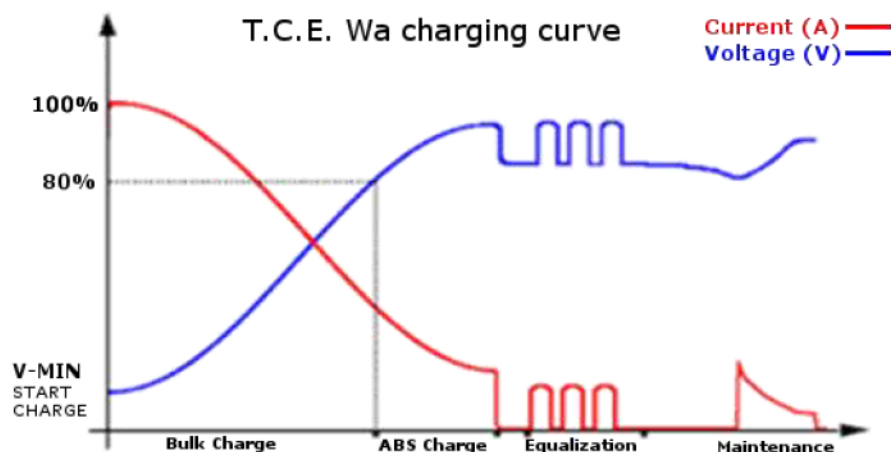
SXE SERIES

CHARGE CURVES



SE SERIES

CHARGE CURVES



EVO SERIES

TROUBLESHOOTING GUIDE

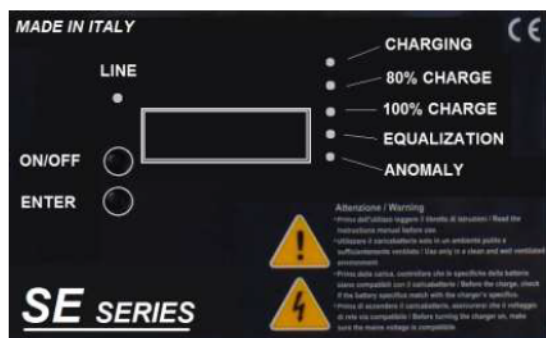
SXE SERIES



THERE ARE NO ADVANCED DIAGNOSIS

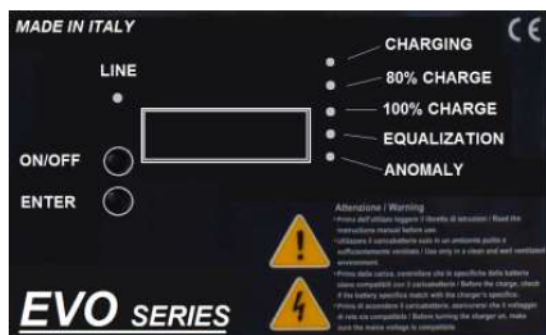
IF THE BLUE LED (STANDBY) DOES NOT LIGHT UP
CONTACT THE MANUFACTURER

SE SERIES



ERROR CODE	DESCRIPTION	ACTION
T +	High internal temperature	Try to make another charge
V +	High battery voltage	Clean DC connections
C +	High charge current	Check the correct connection of the power transformer with respect to the mains.
Time Exceeded	Exceeding the maximum time	Check that the size of the battery and the charger match.

EVO SERIES



ERROR CODE	DESCRIPTION	ACTION
T +	High internal temperature	Try to make another charge
V +	High battery voltage	Clean DC connections
C +	High charge current	Check the correct connection of the power transformer with respect to the mains.
Time Exceeded	Exceeding the maximum time	Check that the size of the battery and the charger match.

MAINTENANCE

**ATTENTION!**

ONLY QUALIFIED AND PROPERLY INSTRUCTED PERSONNEL CAN PERFORM MAINTENANCE AND / OR PUT OUT OF SERVICE OF THE BATTERY CHARGER, IN COMPLIANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND COMPLYING WITH THE REGULATIONS IN FORCE, WHETHER THEY ARE FEDERAL, STATE OR LOCAL.

PERIODIC MAINTENANCE

**DANGER**

DISCONNECT THE SYSTEM FROM THE ELECTRICITY NETWORK BEFORE CARRYING OUT ANY CLEANING OR MAINTENANCE OPERATION.

Periodically it is necessary to clean the charger from dust and / or dirt, which over time may have deposited on the external surface.

Use a dry cloth or possibly an air compressor to blow the dust, make sure that there is no moisture in the compressed air circuit.

You can also use a slightly damp, non-abrasive cloth that is free of alcohol or aggressive solvents.

Do not use abrasive sponges, chemical solvents or detergents.

During cleaning, avoid water touching internal electrical parts of the device.

EXTRAORDINARY MAINTENANCE

**DANGER**

DISCONNECT THE SYSTEM FROM THE ELECTRICITY NETWORK AND CALL THE MANUFACTURER'S TECHNICAL ASSISTANCE.

Extraordinary maintenance is required in the event of faults or breakages, inappropriate use of the battery charger or its malfunction and / or wear.

The situations that can arise from time to time are completely random and unpredictable, so it is not possible to describe them.

If necessary, consult the manufacturer's technical service to receive the appropriate instructions for the situation.

PUTTING OUT OF SERVICE

PUTTING THE BATTERY CHARGER OUT OF SERVICE



ATTENTION!

ONLY QUALIFIED AND APPROPRIATELY TRAINED PERSONNEL CAN PERFORM THE BATTERY CHARGER OUT OF SERVICE OPERATIONS, IN COMPLIANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND COMPLYING WITH THE REGULATIONS IN FORCE, WHETHER THEY ARE FEDERAL, STATE OR LOCAL.



DANGER

DISCONNECT THE SYSTEM FROM THE ELECTRICITY NETWORK AND CALL THE MANUFACTURER'S TECHNICAL ASSISTANCE.

If the charger has been seriously damaged, such as to make it impossible to repair, it must be permanently taken out of service !!

When the battery charger is taken out of service, it can no longer be used and must follow the DISPOSAL procedure as indicated on page 33.



ATTENTION!

AFTER PUTTING THE CHARGER OUT OF SERVICE, IT WILL NO LONGER BE USED, IT MUST BE DISPOSED OF ACCORDING TO THE REGULATIONS IN FORCE, WHETHER THEY ARE FEDERAL, STATE OR LOCAL.

IF THE CORRECT DISPOSAL PROCEDURES ARE NOT FOLLOWED, THE MANUFACTURER DECLINES ANY CIVIL OR CRIMINAL LIABILITY ARISING FROM THE NON-COMPLIANCE OF THE REGULATIONS BY THE OWNER OF THE BATTERY CHARGER OR ANYONE FOR IT.

WARRANTY CERTIFICATE



TYPE OF CHARGER	SERIAL NUMBER S/N	DATE OF PURCHASE GG/MM/AAAA
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SERIES :

S/N:.....

DATE: __/__/____

MANUFACTURER:

TCE Group S.r.l.

BUYER'S STAMP and
SIGNATURE

The manufacturer guarantees the product, with the exception of elements subject to normal wear such as power supply cable on the mains side, charging cable on the battery side, chassis, air filters, cooling fans, etc., for a duration of 1 (one) years. from the date of purchase which must be proven by a documentary evidence (invoice) that shows the name of the seller and the buyer and the date on which the sale was made.

The warranty of the charger includes the replacement or repair of components recognized as defective by the manufacturer (factory defect), the costs of collection and shipping remain the responsibility of the buyer.

Any repairs and / or modifications made to the charger carried out by the user or by personnel not expressly authorized by TCE Group S.r.l., determines the immediate forfeiture of the guarantee and at the same time raises TCE Group S.r.l. from any liability in case of damage to people, property and animals.

The Warranty, as per law, covers the products placed on the market by TCE Group S.r.l., solely from manufacturing defects recognized by the manufacturer, for a period of 12 months from the date of sale.

This WARRANTY CERTIFICATE must be completed in all its parts and must be forwarded to TCE Group Srl within 8 days. from the purchase, otherwise the Warranty expires.

TCE Group Srl

Via Giuseppe di Vittorio 5/9 - 35046 Borgo Veneto (Padova) – ITALY
Tel.: +39 0429 89 290 - web: www.tcechargers.com

DICHIARAZIONE CE DI CONFORMITA'

CE DECLARATION OF CONFORMITY

TCE GROUP s.r.l. Via G. di Vittorio, 9 35046-Borgo Veneto-Padova-ITALY –Tel.+39 0429 89290 WEB:
www.tcechargers.com

dichiara sotto la propria esclusiva responsabilità che i(l) prodotto(i):
 declare under our sole responsibility that the product(s):

nome / descrizione: CARICABATTERIA PER USO INDUSTRIALE
 name / description: Industrial Battery-charger

modello(i): EVO(X-Y)M *, SE(X-Y)M *, EVO(X-Y)T *, SE(X-Y)T *, SXE(X-Y)T*
 Model(s):

*(X represent nominal output voltage, Y represent output current, M represent power supply mono-phase, T represent power supply three-phase)

risultano in conformità a quanto previsto dalle seguenti direttive comunitarie
 is in conformity with the provisions of the following EU/EC directives

2014/35/UE (Direttiva Bassa Tensione) concernente l'armonizzazione delle legislazioni degli Stati membri relative alla messa a disposizione

2014/35/EU (Low Voltage Directive) sul mercato del materiale elettrico destinato a essere adoperato entro taluni limiti di tensione
 on the harmonisation of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits

2014/30/UE (Direttiva EMC) concernente l'armonizzazione delle legislazioni degli Stati membri relative alla Compatibilità

Elettromagnetica
 2014/30/EU (EMC Directive) on the harmonisation of the laws of the Member States relating to Electromagnetic Compatibility

2011/65/CEE (Direttiva RoHS) Restrizione dell'uso di determinate sostanze pericolose nelle apparecchiature elettriche ed elettroniche

2011/65/EEC (ROHS Directive) Restriction of the use of certain hazardous substances in electrical and electronic equipment

e che sono state applicate le norme armonizzate seguenti:

that the following harmonized standard have been applied

Sicurezza: elettrica Electrical Safety	EN 60335-1:2012 +A11:2014 +A13:2017	Household and similar electrical appliances - Safety - Part 1: General requirements
	EN 60335-2-29:2004 +A1: 2010 +A11:2018	Household and similar electrical appliances - Safety - Part 2-29: Particular requirements for battery chargers
	EN62233:2008	Measurement methods for electromagnetic fields of household appliances and similar apparatus with regard to human exposure
Compatibilità Elettromagnetica ElectroMagnetic Compatibility	EN IEC 61000-6-4:2019	Electromagnetic Compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments
	EN IEC 61000-6-2:2019	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards. Immunity standard for industrial environments.
	EN IEC 61000-3-2:2019	Electromagnetic compatibility (EMC) -Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤ 16A per phase)
	EN 61000-3-3:2013 +A1:2019	Electromagnetic compatibility (EMC) — Part 3-3: Limits — Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection
R.o.H.S. Restriction of the use of certain hazardous substances in electrical and electronic equipment	EN IEC 63000:2018	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

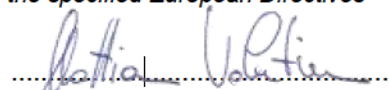
Informazioni supplementari:

Supplementary information:

Sulla base del/i test/s report/s allegati al Fascicolo Tecnico, il prodotto e' ritenuto conforme alle norme sopra indicate riconosciute come base per la presunzione di conformità ai requisiti essenziali delle Direttive Europee specificate.

Based on the test/s report/s attached to the Technical File, the product is intended in conformity with the standards above that's recognized as giving presumption of conformity with the essential requirements in the specified European Directives

Borgo Veneto, 01.04.2023


 Il Rappresentante Legale
 Legal Manager

ANNOTAZIONI/NOTE

[illegible]

[illegible]

ANNOTAZIONI/NOTE

[illegible]

ETICHETTA PRODOTTO / PRODUCT LABEL

CARICABATTERIE “TRADIZIONALE” – MANUALE D’INSTALLAZION, USO E MANUTENZIONE

ATTENZIONE: leggere attentamente il manuale operativo prima di utilizzare il caricabatterie

“TRADITIONAL” BATTERY CHARGERS – INSTALLATION, USE AND MAINTENANCE MANUAL

*ATTENTION: read carefully the installation, use and maintenance manual before using the
battery chargers*

Etichetta prodotto

Product label

